

BookletChart™



Intracoastal Waterway – Galveston Bay to Cedar Lakes

NOAA Chart 11322

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker

Approximate Page Index					
4	5	6	7	8	9
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27

**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

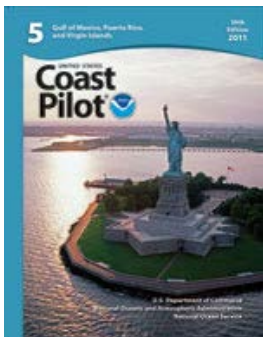
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=11322>



[Coast Pilot 5, Chapter 12 excerpts]

The waterway leaves the Bolivar cut and enters **Galveston Bay** at **Mile 349.3W**. The direct route bypasses Galveston and proceeds SW through the lower part of the bay. **Houston Ship Channel** is crossed at **Mile 350.2W**. The Coast Guard has requested vessels transiting the waterway make a **SECURITE** call on VHF-FM channel 13 prior to crossing Houston Ship Channel, particularly during periods of restricted visibility. Vessel Traffic Service Houston-

Galveston recommends west bound tows avoid meeting east bound tows between Bolivar Peninsula Buoy 15 and Buoy 20 due to strong currents and shoaling at the entrance to Bolivar. The port of **Houston** is

43 miles to the NW. The channel to Texas City is crossed at **Mile 350.8W**; the port is 5 miles to the WNW.

Vessel Traffic Service Houston-Galveston became mandatory 13 October 1994. VTS Houston/Galveston is an information hub, using radar, closed circuit television, and VHF communications to provide the users with decision making information. VTS Houston/Galveston's mission is to facilitate safe, efficient waterborne commerce. Specifically, VTS Houston/Galveston works to prevent groundings, ramming, and collisions, by sharing information and implementing appropriate traffic management measures.

Detailed information on VTS Houston/Galveston's operating requirements, designated frequencies, precautionary areas, and mandatory reporting points can be found in **CFR Chapter 2 Part 161 Vessel Traffic Management, tables 161.12, 161.35(b), and 161.35(c)**. Mariners should obtain the latest edition of the U.S. Coast Guard's Houston/Galveston Vessel Traffic Service User's Manual, available from the Commanding Officer, U.S. Coast Guard Vessel Traffic Houston/Galveston, 9640 Clinton Drive, Houston, TX 77029. Website: www.uscg.mil/VTSHouston

Anchorage.—Vessels may anchor off the bar in the Galveston Entrance Anchorages just inshore of the intersection of the Galveston Safety Fairway with the Coastwise Fairway. (See 166.100 through 166.200, chapter 2, for limits and regulations.)

Small craft anchoring in the designated areas should find the shoaler water so as to leave the deeper areas clear for larger vessels.

Dangers.—A considerable number of unmarked dangerous wrecks exist in the approaches to Galveston Bay Entrance. A spoil bank is S of the Outer Bar Channel, and an extensive shoal area is S of the channel between the jetties. Heald Bank and the offshore oil well structures are the principal hazards.

Vessels navigating in the Houston Ship Channel from Bolivar Roads to Morgans Point are cautioned about the heavy breakers which result from the bow wakes of tankers and other large merchant vessels in the channel.

Dangers.—About 6 miles SW of the entrance to Freeport Harbor, Brazos River has generated a shoal extending about 5 miles into the Gulf off the mouth of the river. This area is foul and should be given a wide berth. It is reported that several vessels have stranded in this vicinity and that the depths are considerably less than charted. The bottom is soft mud, indicating that silting from the river has occurred.

Oil drilling structures may be erected in the Gulf near the approach to Freeport Harbor. Mariners should be on the lookout for these structures and give them a wide berth.

Strong cross winds and currents at the jetty entrance make navigation difficult for larger vessels. Difficulty in navigation is experienced with larger vessels at the junction with the Intracoastal Waterway when strong currents are flowing from the canal. Large vessels are difficult to turn in the smaller upper turning basin.

**U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies**

RCC New Orleans Commander
8th CG District (504) 589-6225
New Orleans, LA

Table of Selected Chart Notes

HEIGHTS

Heights in feet above Mean High Water.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) o (Approximate location)

CAUTION

Survey platforms, signs, pipes, piles, and stakes, some submerged, may exist along the maintained channels. Piles and platforms are not charted where they interfere with a light symbol.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 8th Coast Guard District in New Orleans, LA, or at the Office of the District Engineer, Corps of Engineers in Galveston, TX. Refer to charted regulation section numbers.

RULES OF THE ROAD

(ABRIDGED)

Motorless craft have the right-of-way in almost all cases. Sailing vessels and motorboats less than sixty-five feet in length shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.

A motorboat being overtaken has the right-of-way.

Motorboats approaching head to head or nearly so should pass port to port.

When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.

Motorboats must keep to the right in narrow channels when safe and practicable.

Mariners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules."

MERCATOR PROJECTION AT SCALE 1:40,000

SOUNDINGS IN FEET

AT MEAN LOWER LOW WATER

North American Datum of 1983

(World Geodetic System 1984)

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

FREEPORT HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2012

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW TIDE (MLT)

PROJECT DIMENSIONS

NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLW (FEET)
OUTER BAR CHANNEL	41.0	42.0	42.0	41.0	6-12	400	4.92	47
JETTY CHANNEL	41.0	42.0	42.0	40.0	6-12	400	1.35	45
LOWER TURNING BASIN	42.0	43.0	43.0	42.0	4-12	750	0.13	45
CHANNEL TO BRAZOSPORT								
TURNING BASIN	43.0	44.0	43.0	43.0	4-12	400-600	0.48	45
BRAZOSPORT TURNING BASIN	44.0	44.0	44.0	44.0	4-12	500-1000	0.28	45
CHANNEL TO UPPER								
TURNING BASIN	46.0	47.0	46.0	46.0	4-12	280-750	1.03	45
UPPER TURNING BASIN	48.0	49.0	49.0	49.0	4-12	800-1190	0.18	45
BRAZOS HARBOR APPROACH CHANNEL	38.0	40.0	40.0	40.0	4-12	200-650	0.53	36
BRAZOS HARBOR TURNING BASIN	36.0	37.0	37.0	36.0	4-12	750	0.11	36
CHANNEL TO STAUFFER								
TURNING BASIN	17.0	19.0	19.0	17.5	11-58	200	1.0	25
STAUFFER TURNING BASIN	18.0	18.0	18.0	16.0	11-58	500	0.1	25

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS. DEPTHS ARE REFERENCED TO A LOCAL DREDGING REFERENCE CALLED MEAN LOW TIDE. FOR AN APPROXIMATE CONVERSION TO MEAN LOWER LOW WATER, ADD 1 FOOT TO EACH DEPTH IN THE TABULATION.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION



NAUTICAL CHART 11322

INTRACOASTAL WATERWAY

TEXAS

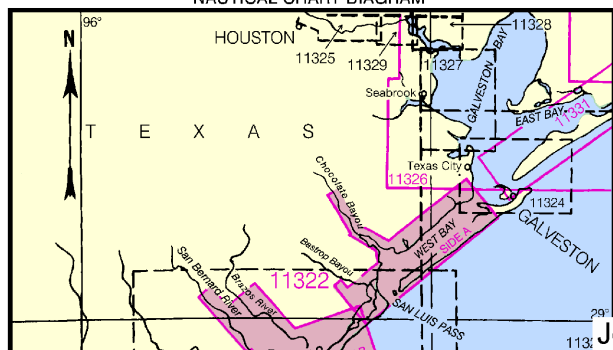
GALVESTON BAY TO CEDAR LAKES



Chart 11322 33rd Ed., May /12 ■
Corrected through NM May 05/12, LNM Apr. 24/12

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

NAUTICAL CHART DIAGRAM



Joins page 10

MERCATOR PROJECTION AT SCALE 1:40,000
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER
North American Datum of 1983
(World Geodetic System 1984)

Additional information can be obtained at nauticalcharts.noaa.gov.

HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

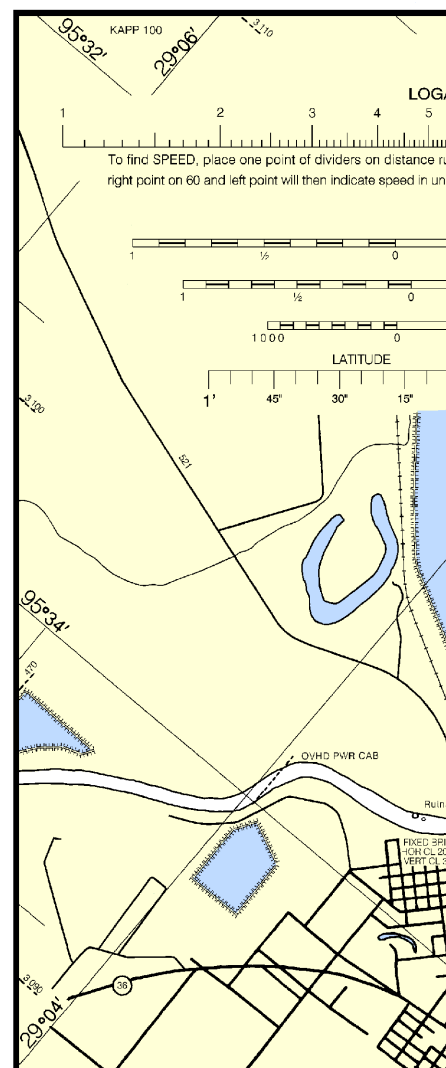
Consult U.S. Coast Pilot 5 for important supplemental information.

PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadrons (USPS) and U.S. Coast Guard Auxiliary (USCGAUX), national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses, contact the following sources:

USPS - Local Squadron Commander or USPS Headquarters, 1504 Blue Ridge Road, Raleigh, NC 27607, 888-367-8777

USCGAUX - COMMANDER (OAX), Eighth Coast Guard District, Hale Boggs Federal Building, Suite 1126, 500 Poydras Street, New Orleans, LA 70130, 800-524-8835 or USCG Headquarters, Office of the Chief Director (G-OCX), 2100 Second Street, SW, Washington, DC 20583



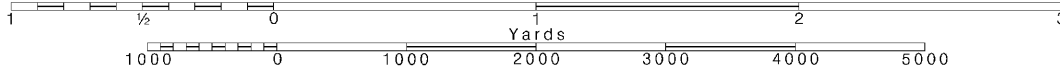
4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.



ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Is isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Co coral	gy gray	Oys oysters
bk broken	h hard	Rk rock
Cy clay	M mud	S sand

so soft
Sh shells
sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(2) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

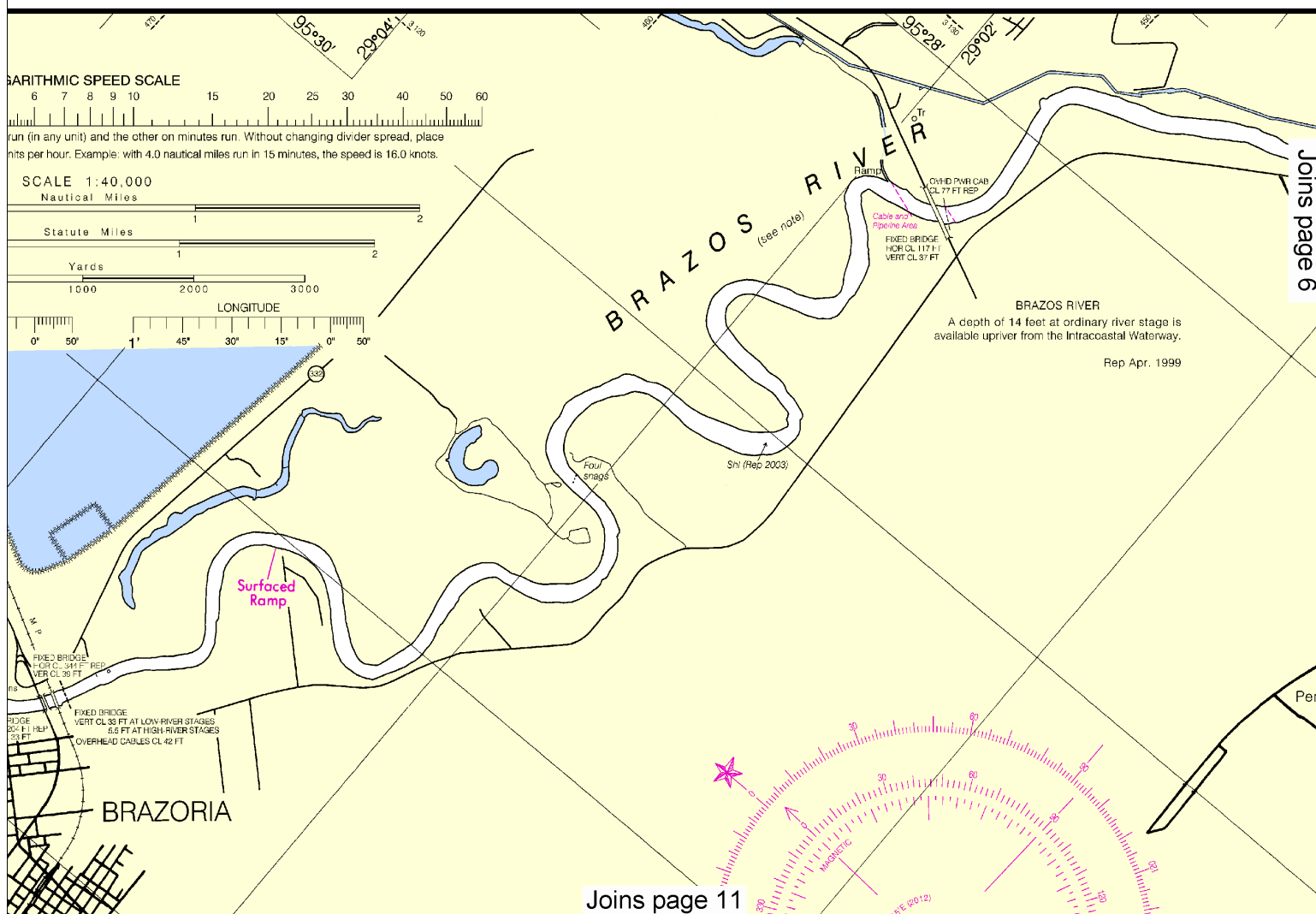
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.

Demarcation lines are shown thus: — — — — —

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.671" northward and 0.761" westward to agree with this chart.

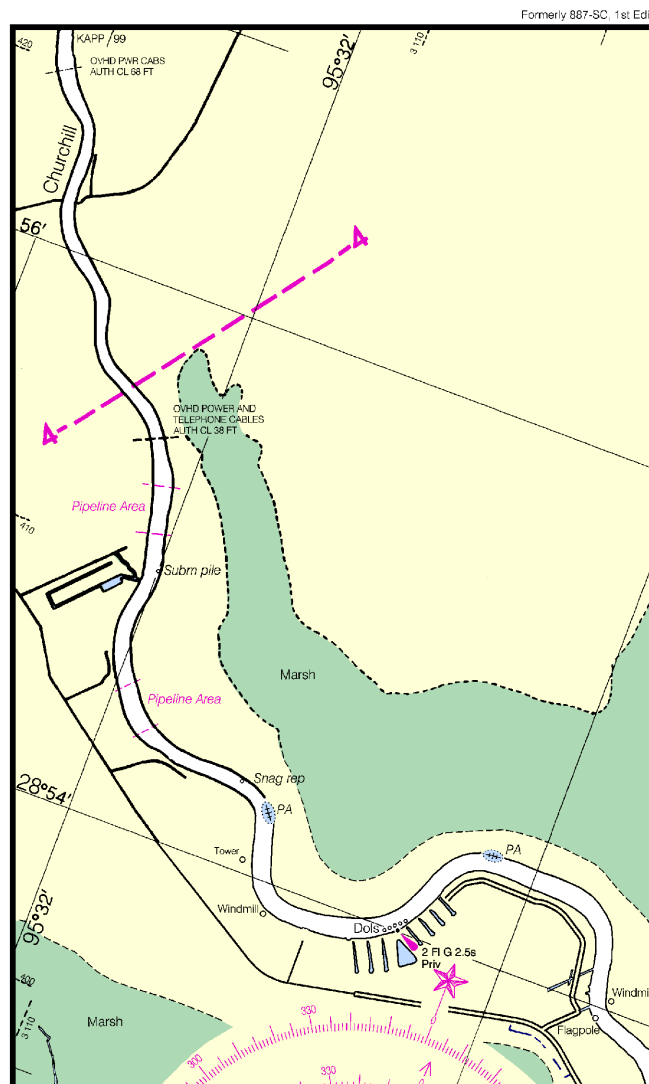
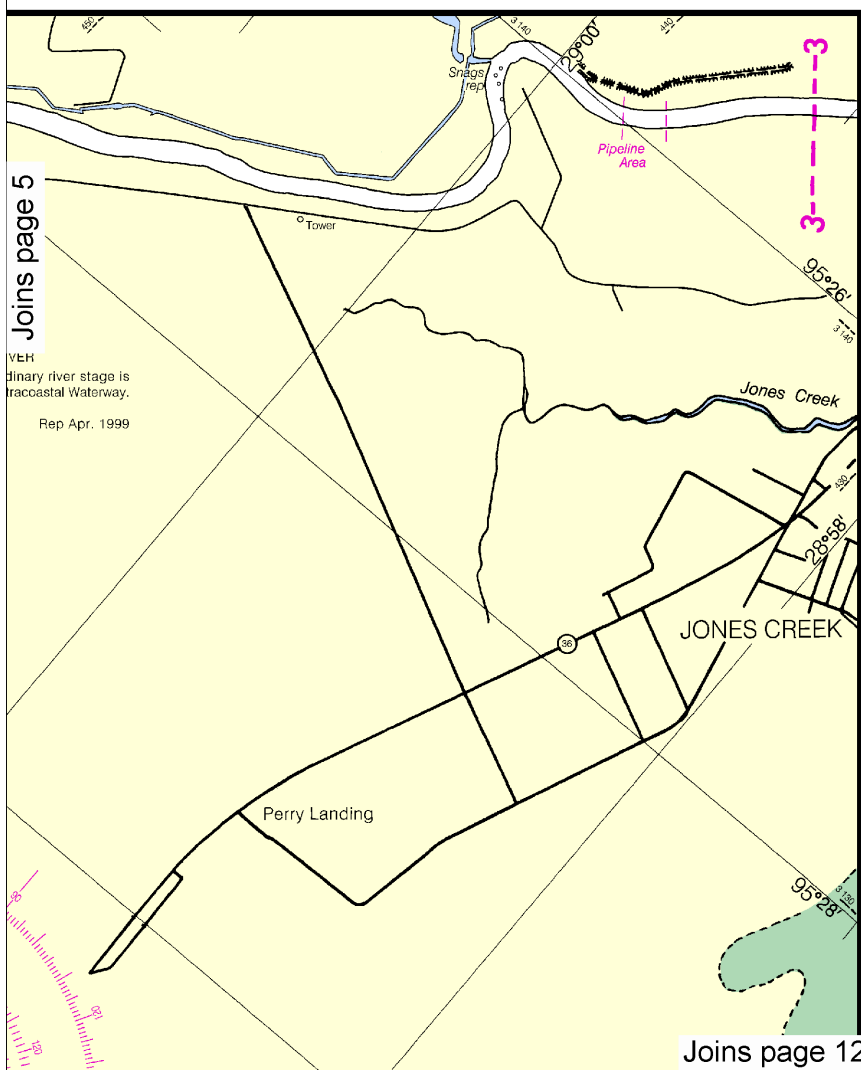
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:53333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

power
miles
k
ged

al
or
an



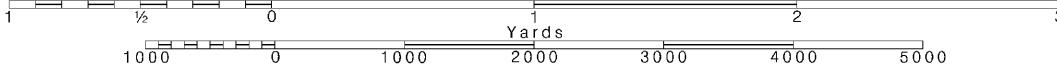
6

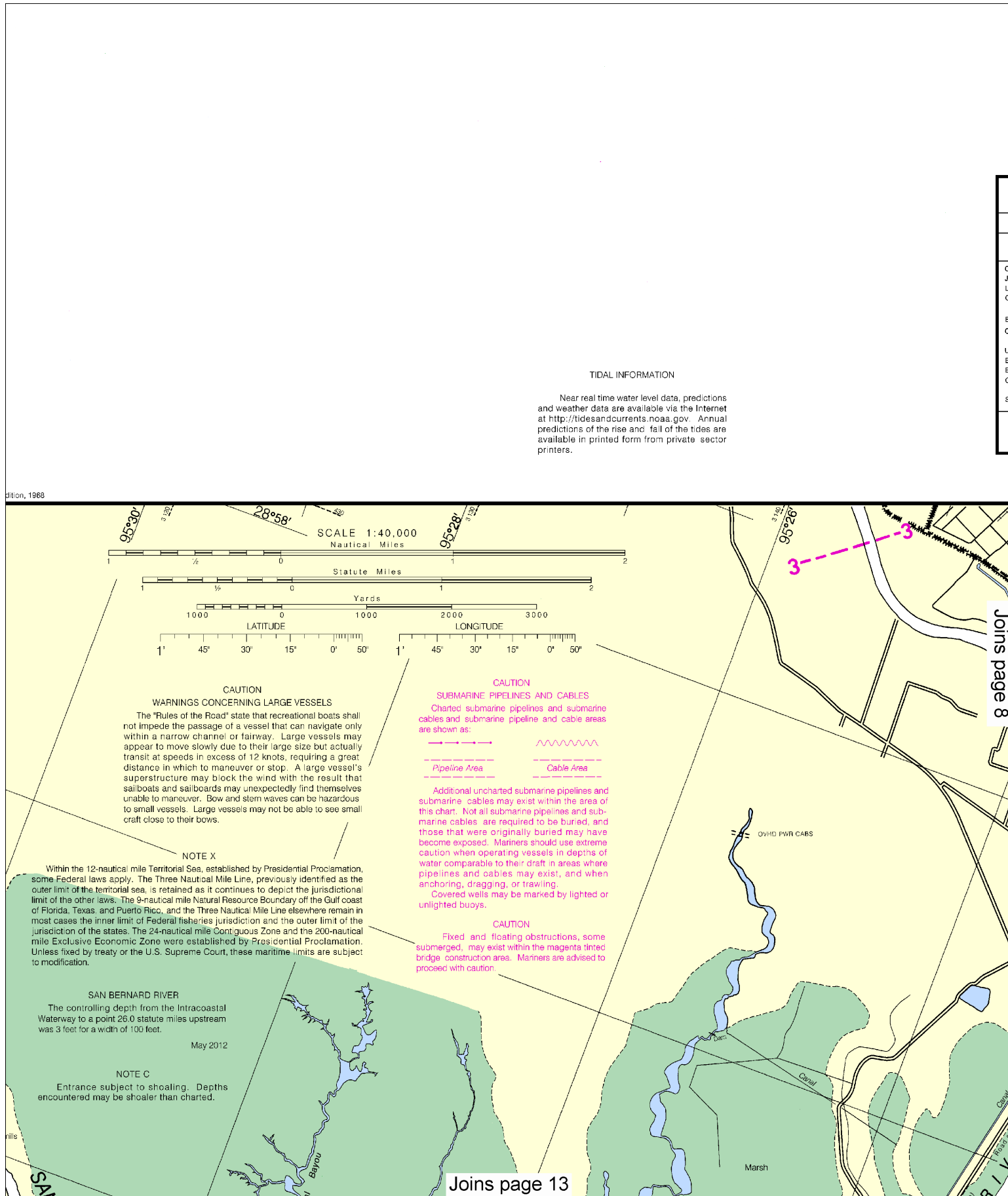
Note: Chart grid
lines are aligned
with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
 ○ (Accurate location) ◦ (Approximate location)

INTRACOASTAL WATERWAY

Project Depths

12 feet Carrabelle, FL to Brownsville, TX.
 The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.

Distances

The Waterway is indicated by a magenta line. Mileage distances shown along the Waterway are in Statute Miles, based on zero at Harvey Lock, LA, and are indicated thus: —◆—

Tables for converting Statute Miles to International Nautical Miles are given in U.S. Coast Pilot 5.

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

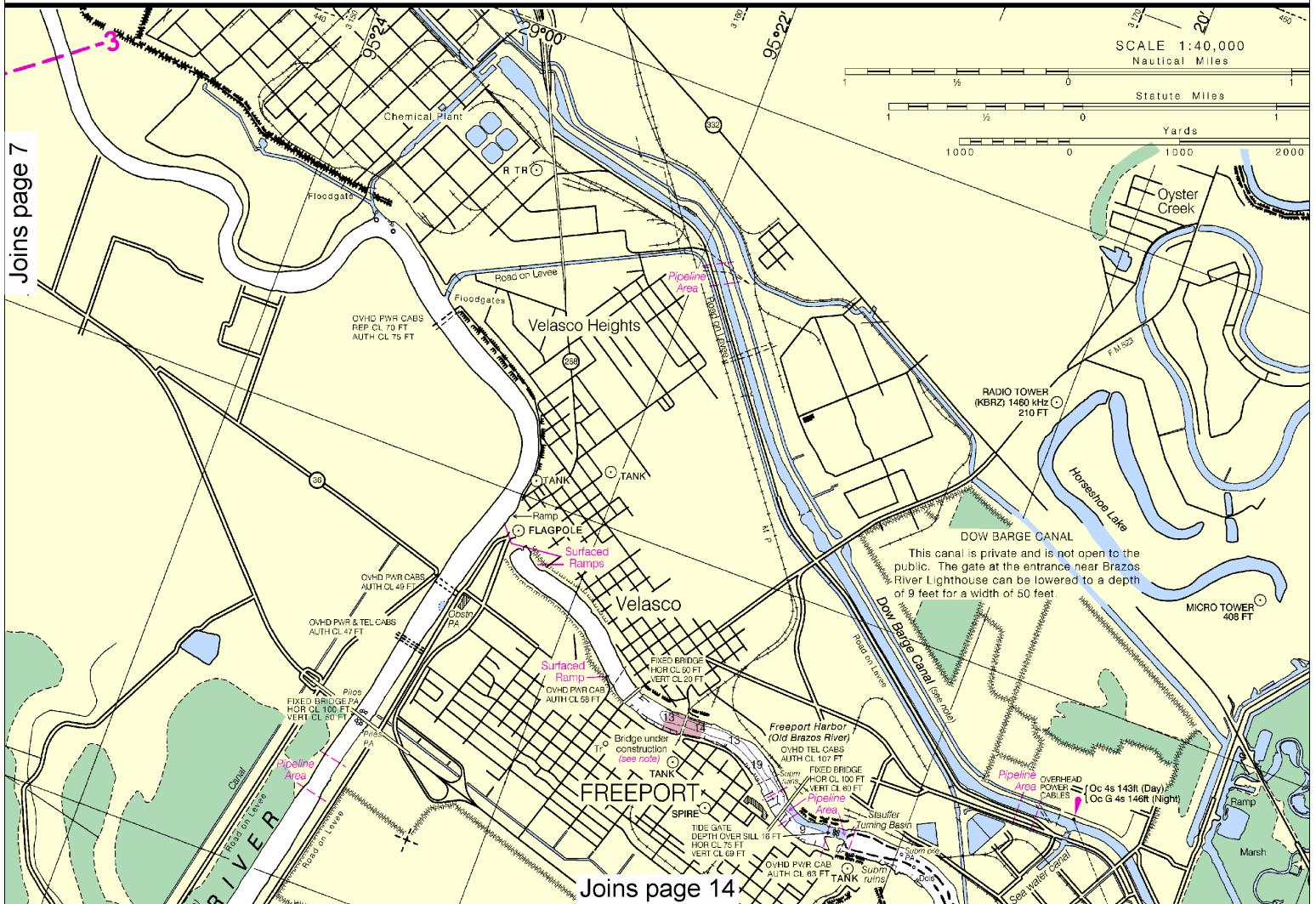
When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

FREEPORT HARBOR CHANNEL DEPTHS						PROJECT DIMENSIONS		
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 1912						WIDTH (FEET)	LENGTH (MILES)	DEPTH MLW (FEET)
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY			
OUTER BAR CHANNEL	41.0	42.0	42.0	41.0	6-12	400	4.92	47
JETTY CHANNEL	41.0	42.0	42.0	40.0	6-12	400	1.35	45
LOWER TURNING BASIN	42.0	43.0	43.0	42.0	4-12	750	0.13	45
CHANNEL TO BRAZOSPORT TURNING BASIN	43.0	44.0	43.0	43.0	4-12	400-600	0.48	45
BRAZOSPORT TURNING BASIN	44.0	44.0	44.0	44.0	4-12	500-1000	0.28	45
CHANNEL TO UPPER TURNING BASIN	46.0	47.0	46.0	46.0	4-12	280-750	1.03	45
UPPER TURNING BASIN	48.0	48.0	48.0	48.0	4-12	600-1190	0.18	45
BRAZOS HARBOR APPROACH CHANNEL	38.0	40.0	40.0	40.0	4-12	200-650	0.53	36
BRAZOS HARBOR TURNING BASIN	36.0	37.0	37.0	36.0	4-12	750	0.11	36
CHANNEL TO STAUFFER TURNING BASIN	17.0	19.0	19.0	17.5	11-88	200	1.0	25
STAUFFER TURNING BASIN	18.0	18.0	18.0	16.0	11-88	500	0.1	25

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS. DEPTHS ARE REFERENCED TO A LOCAL DREDGING REFERENCE CALLED MEAN LOW TIDE. FOR AN APPROXIMATE CONVERSION TO MEAN LOWER LOW WATER, ADD 1 FOOT TO EACH DEPTH IN THE TABULATION.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.



CAUTION

Survey platforms, signs, pipes, piles, and stakes, some submerged, may exist along the maintained channels. Piles and platforms are not charted where they interfere with a light symbol.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 8th Coast Guard District in New Orleans, LA, or at the Office of the District Engineer, Corps of Engineers in Galveston, TX. Refer to charted regulation section numbers.

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

PLANE COORDINATE GRID

(based on NAD 1927)

Texas State Grid, south-central zone is indicated by dashed ticks at 10,000 foot intervals. The last three digits are omitted.

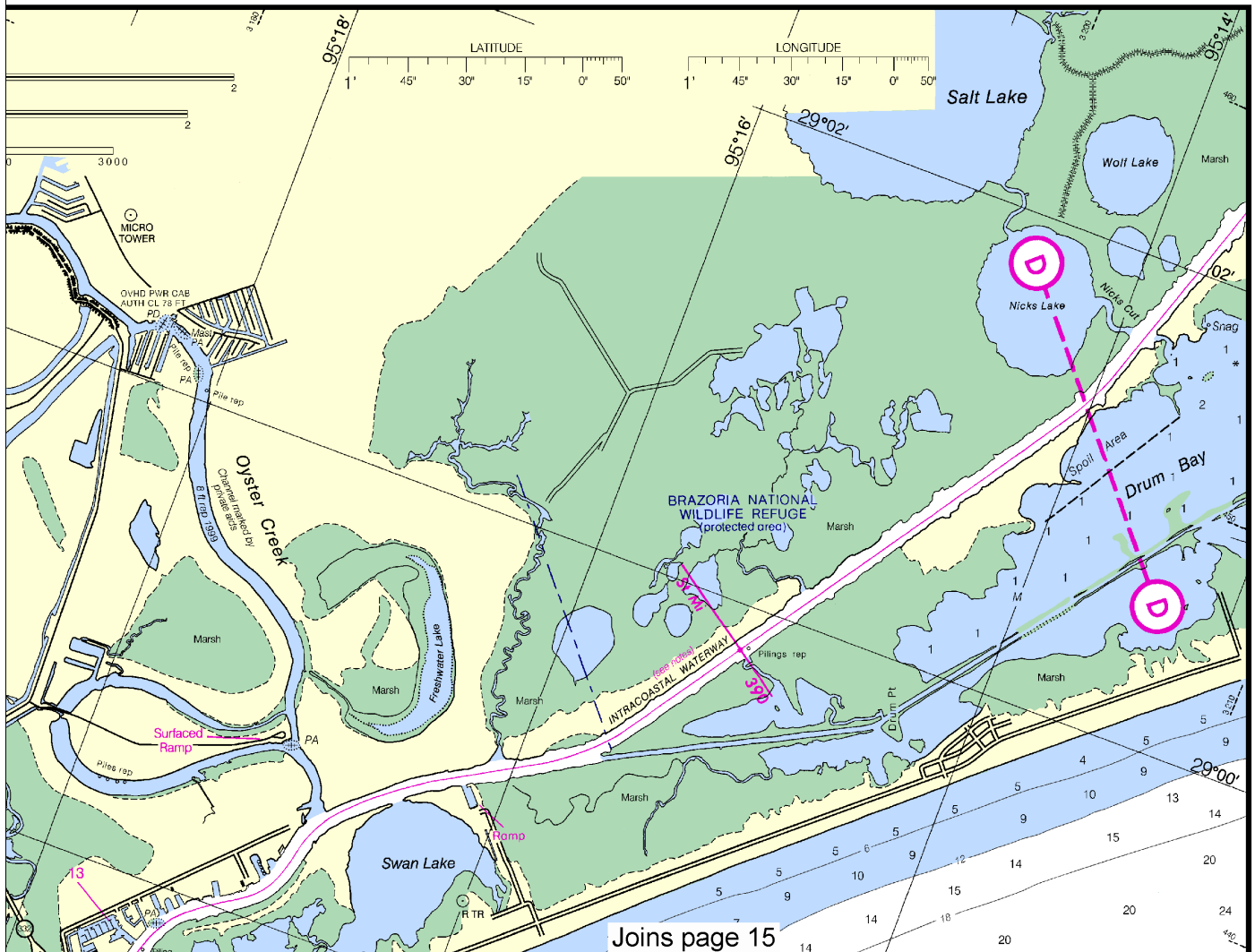


NSN 7642014010219

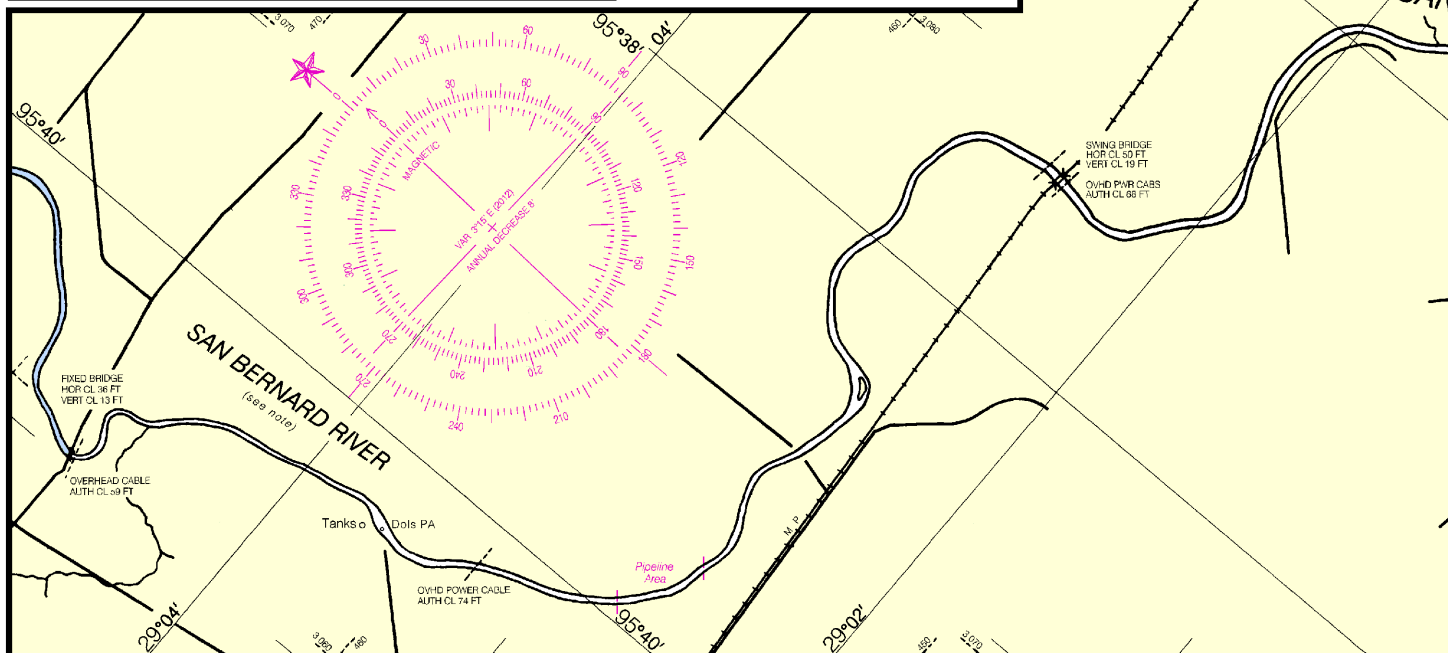
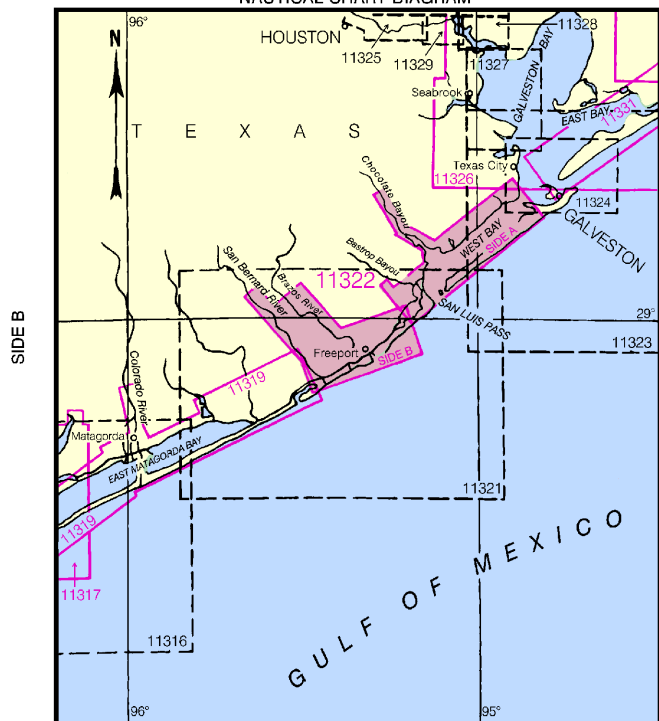
NGA REFERENCE NO. 11XHA11322



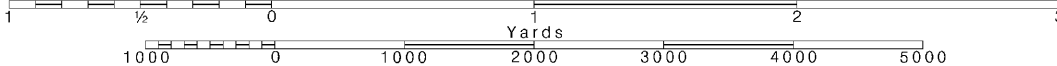
ED NO. 33

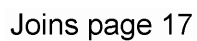


NAUTICAL CHART DIAGRAM



11322 33rd Ed., May /12; Corrected through NM May 05/12, LNM Apr. 24/12





The map shows a section of the N Bernard River. Key features include:

- Perry Landing**: Located at the top of the map.
- Churchill**: A settlement located on the riverbank.
- Fixed Bridge**: A bridge crossing the river, with specifications: HOR CL 100 FT, VERT CL 43 FT.
- Overhead Power Cable**: Labeled with specifications: AUTH CL 86 FT.
- Overhead Power and Telephone Cables**: Labeled with specifications: AUTH CL 68 FT.
- Pipeline Area**: Indicated by a dashed line and labeled with specifications: AUTH CL 38 FT.
- Marsh**: A green-shaded area adjacent to the river.
- Subm pile**: A structure in the river near the pipeline area.
- Surface Ramp**: A feature near the fixed bridge.
- PA**: A point of interest near the fixed bridge.
- Bearings and Distances**: Various bearings and distances are marked along the river and surrounding land, such as 95°28', 28°56', 95°30', 95°32', 95°34', and 28°56'.

The map shows a section of the N Bernard River. Key features include:

- Perry Landing**: Located at the top of the map.
- Churchill**: A settlement located on the riverbank.
- Fixed Bridge**: A bridge crossing the river, with specifications: HOR CL 100 FT, VERT CL 43 FT.
- Overhead Power Cable**: Labeled with specifications: AUTH CL 86 FT.
- Overhead Power and Telephone Cables**: Labeled with specifications: AUTH CL 68 FT.
- Pipeline Area**: Indicated by a dashed line and labeled with specifications: AUTH CL 38 FT.
- Marsh**: A green-shaded area adjacent to the river.
- Subm pile**: A structure in the river near the pipeline area.
- Surface Ramp**: A feature near the fixed bridge.
- PA**: A point of interest near the fixed bridge.
- Bearings and Distances**: Various bearings and distances are marked along the river and surrounding land, such as 95°28', 28°56', 95°30', 95°32', 95°34', and 28°56'.

This nautical chart depicts the Ceder Point area, featuring a large circular compass rose with magnetic and true bearings. The chart includes a pipeline area, a spoil area, and various navigational markers such as 'PA' and 'DOL'. The chart is oriented with a magnetic variation of 3° 15' 00" and an annual decrease of 5". The chart also shows a 'SAN BERNARD NATIONAL WILDLIFE REFUGE (protected area)' and a 'Pipeline Area' near Cowbird Lakes. The chart is marked with coordinates 28°54' to 28°50' N and 95°32' to 95°28' W.

This nautical chart depicts the Ceder Point area, featuring a large circular compass rose with magnetic and true bearings. The chart includes a pipeline area, a spoil area, and various navigational markers such as 'PA' and 'DOL'. The chart is oriented with a magnetic variation of 3° 15' 00" and an annual decrease of 5". The chart also shows a 'SAN BERNARD NATIONAL WILDLIFE REFUGE (protected area)' and a 'Pipeline Area' near Cowbird Lakes. The chart is marked with coordinates 28°54' to 28°50' N and 95°32' to 95°28' W.

Note: Chart grid lines are aligned with true north.

~~SCALE 1:40,000~~
Nautical Miles

The diagram consists of two horizontal number lines. The top number line is labeled "Yards" and has tick marks at 1, $\frac{1}{2}$, 0, 1, 2, and 3. The bottom number line is also labeled "Yards" and has tick marks at 1000, 0, 1000, 2000, 3000, 4000, and 5000.

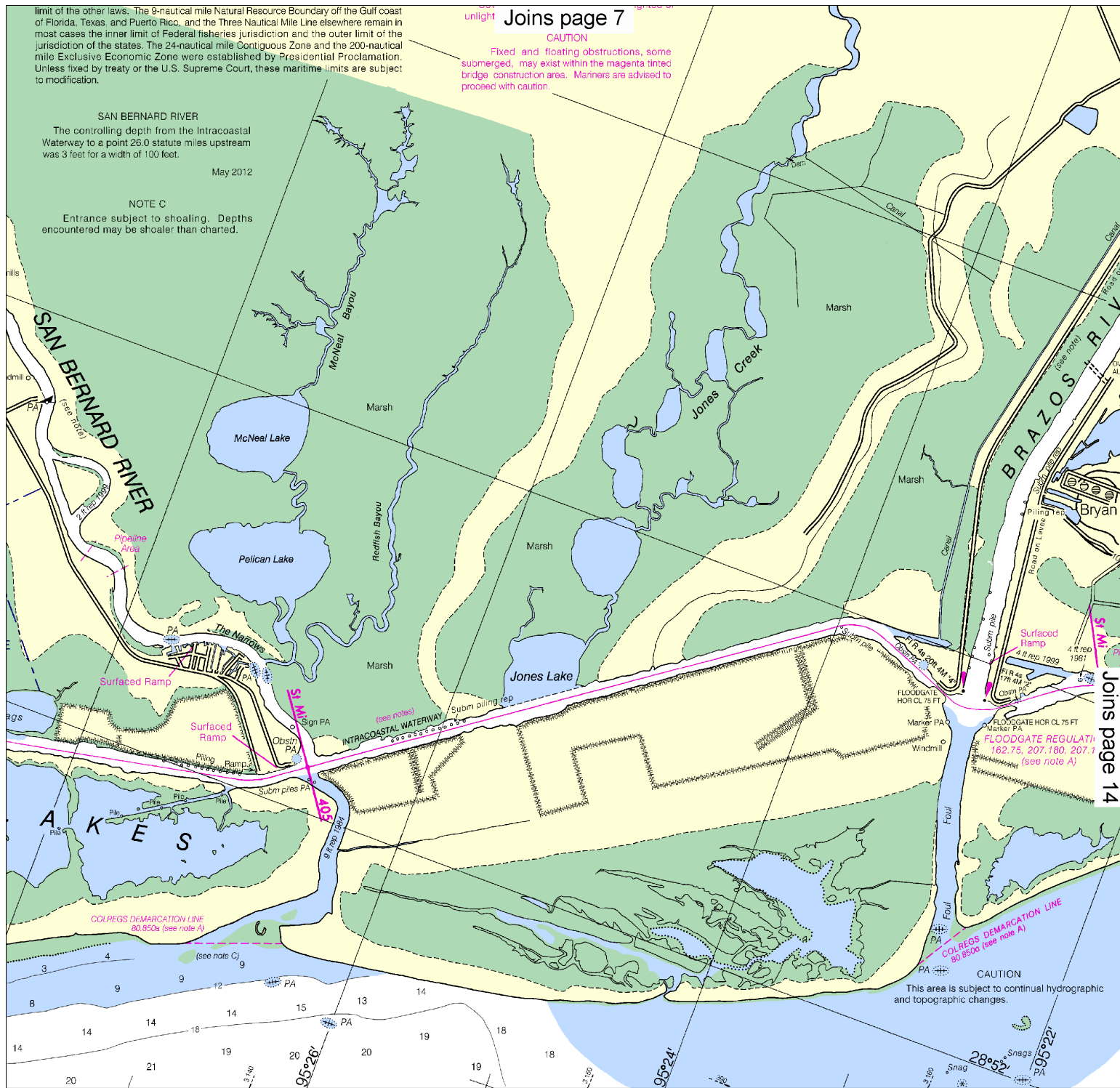
Joins page 7

CAUTION

Fixed and floating obstructions, some submerged, may exist within the magenta tinted bridge construction area. Mariners are advised to proceed with caution.

The controlling depth from the Intracoastal Waterway to a point 26.0 statute miles upstream was 3 feet for a width of 100 feet.

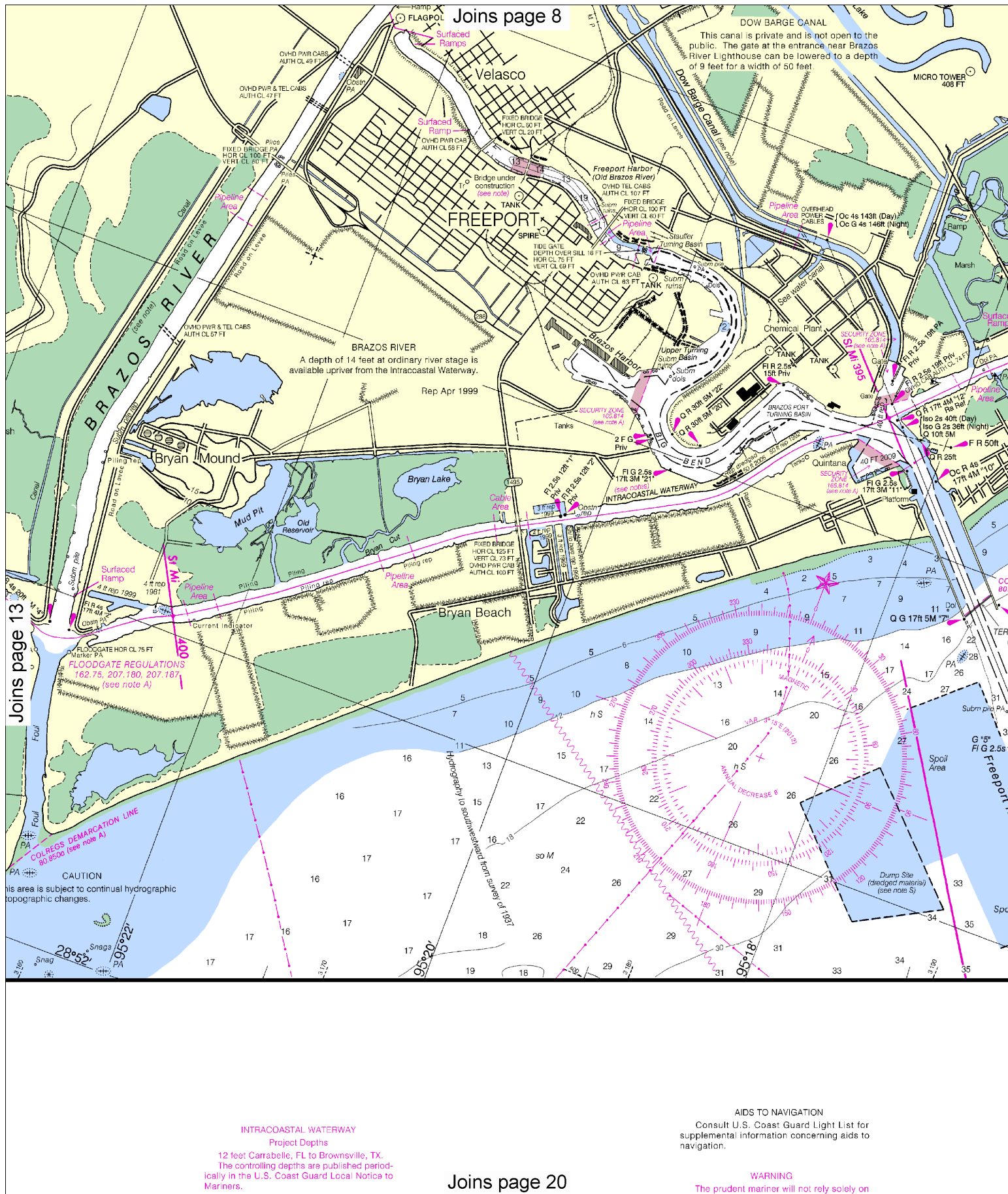
Entrance subject to shoaling. Depths encountered may be shoaler than charted.

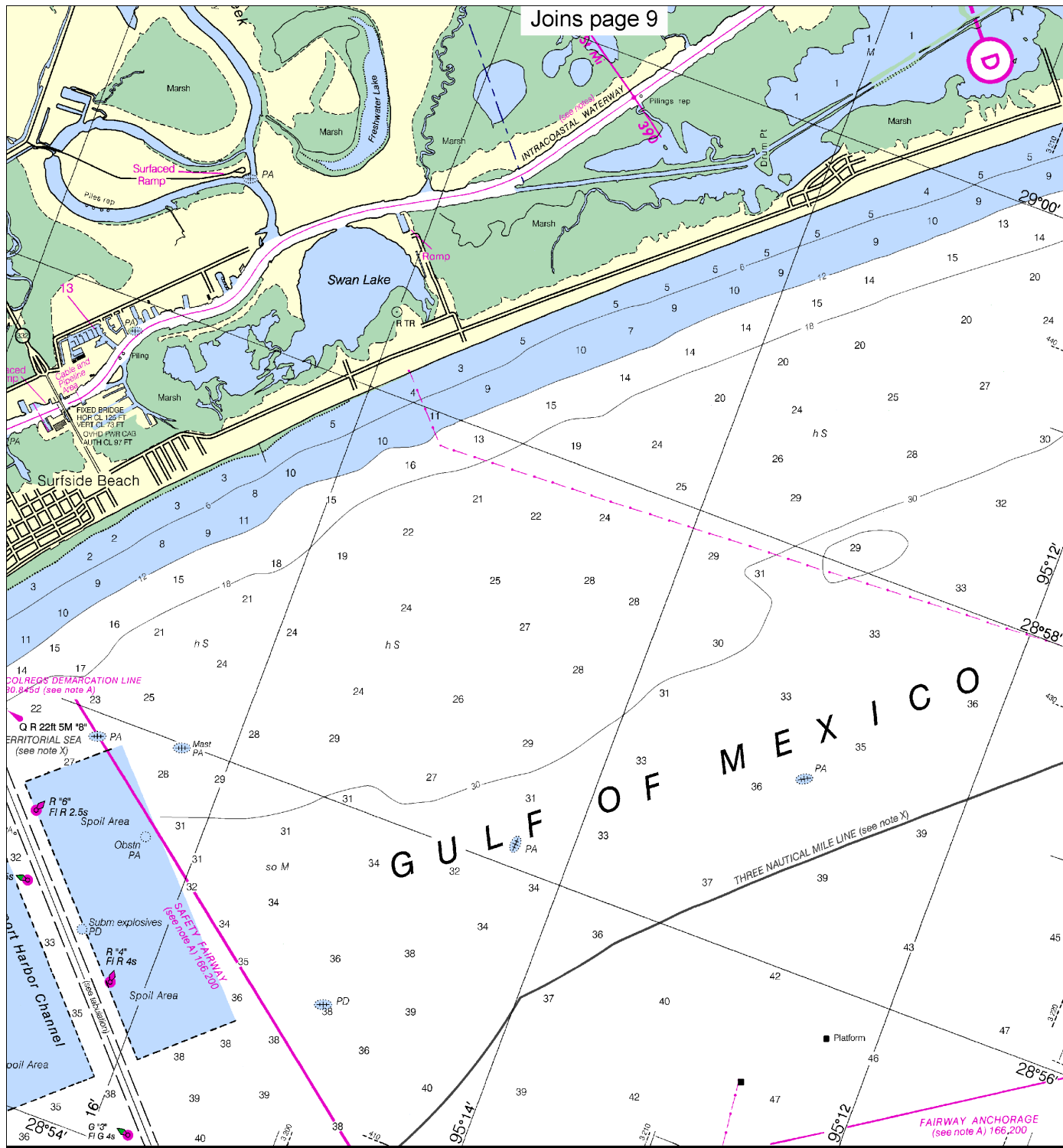


CONTINUED ON CHART 11321

Joins page 19

RULES OF THE ROAD
(ABRIDGED)





SIDE B

**MARINE WEATHER FORECASTS
NATIONAL WEATHER SERVICE**

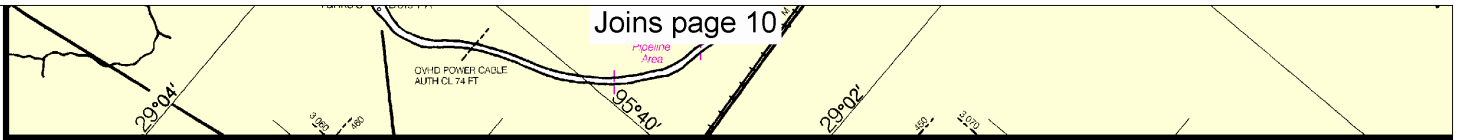
CITY TELEPHONE NUMBER
Houston, TX (281) 337-5074
*Recording (24 hours daily)

OFFICE HOURS
8:00 AM-4:00 PM (Mon.-Fri.)

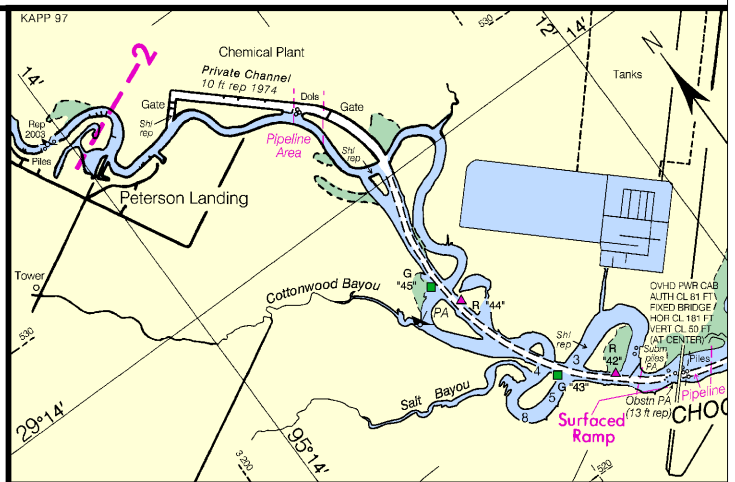
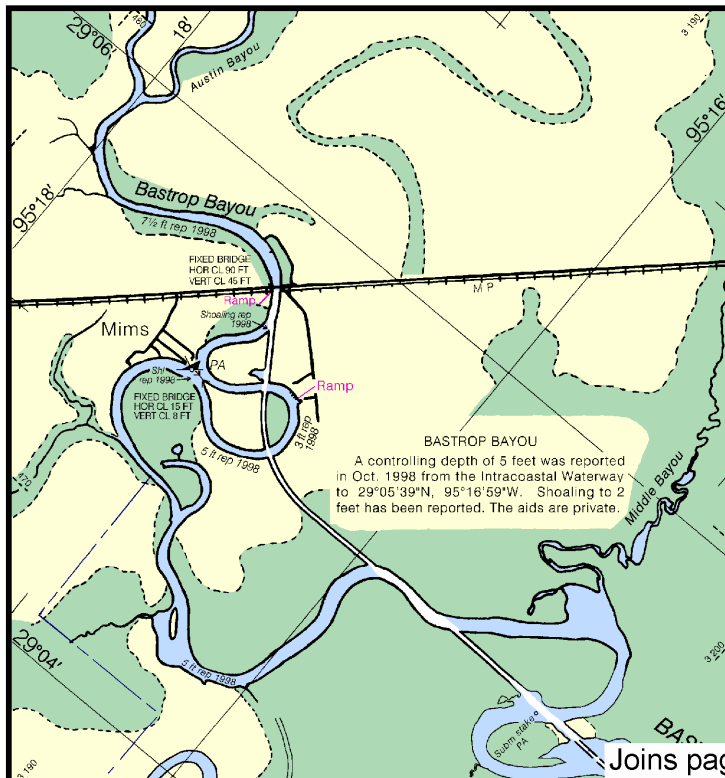
**BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS
BY MARINE RADIOTELEPHONE STATIONS**

CITY	STATION (kHz)	DAILY BROADCAST-CST	SPECIAL WARNINGS
Galveston, Texas	NOY 2670	4:50 6:50 10:50 A.M. 4:50 P.M.	* On receipt
Texas	NOY-3 2670	4:40 6:40 10:40 A.M. 4:40 P.M.	* On receipt

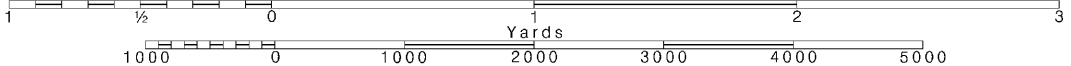
Joins page 21

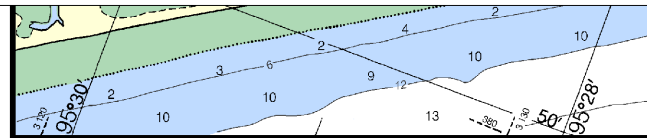


11322 33rd Ed., May /12; Corrected through NM May 05/12, LNM Apr. 24/12



Joins page 22





Joins page 12

SAFETY HINTS

1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
4. The compass on your chart shows the variation from true north; however you must also correct your bearing for the deviation of your boat.
5. Constantly use your chart from the beginning to end of each trip. Keep in mind the orientation of your boat with respect to the chart.
6. Maintain your position on the chart by relating charted features with those you can identify in your surroundings.

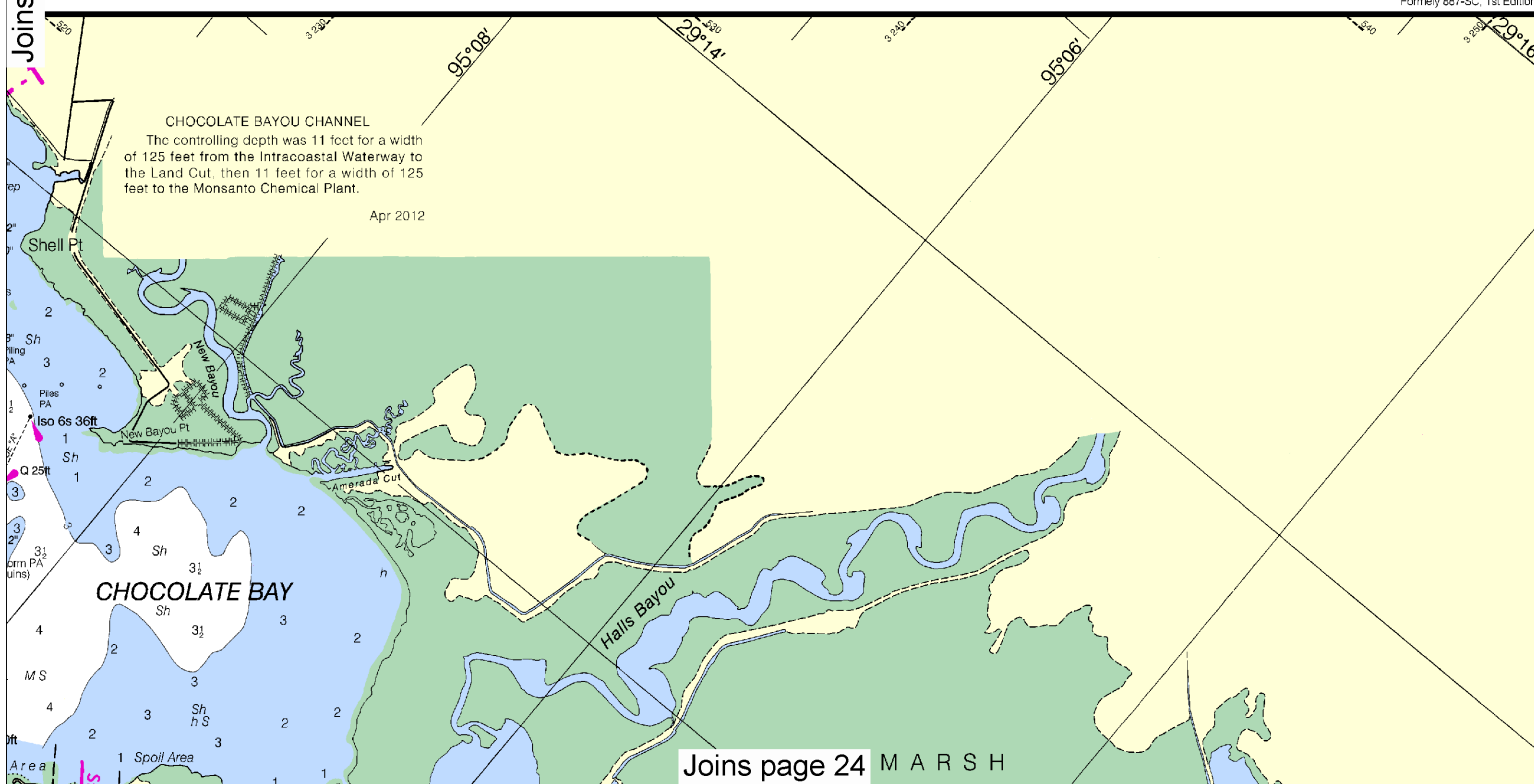
PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocsddata.nod.noaa.gov/ndrs/inquiry.aspx>, or OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.

WI	GH	BT	DG
WI	GH	BT	DG

NDERS.
TO THE FACILITY.
S.

Joins page 17



Formerly 887-SC, 1st Edition.

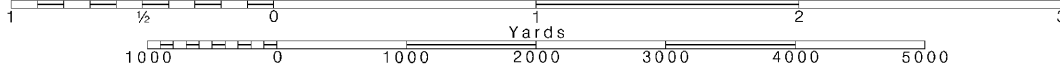
18

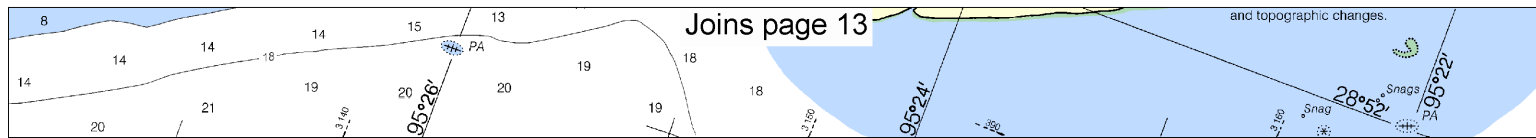
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





CONTINUED ON CHART 11321

RULES OF THE ROAD (ABRIDGED)

Motorless craft have the right-of-way in almost all cases. Sailing vessels and motorboats less than sixty-five feet in length shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.

A motorboat being overtaken has the right-of-way.

Motorboats approaching head to head or nearly so should pass port to port.

When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.

Motorboats must keep to the right in narrow channels when safe and practicable.

Mariners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules."

CAUTION

Stakes, piles and platforms, some submerged, may exist between charted piling and platforms along the maintained channels.

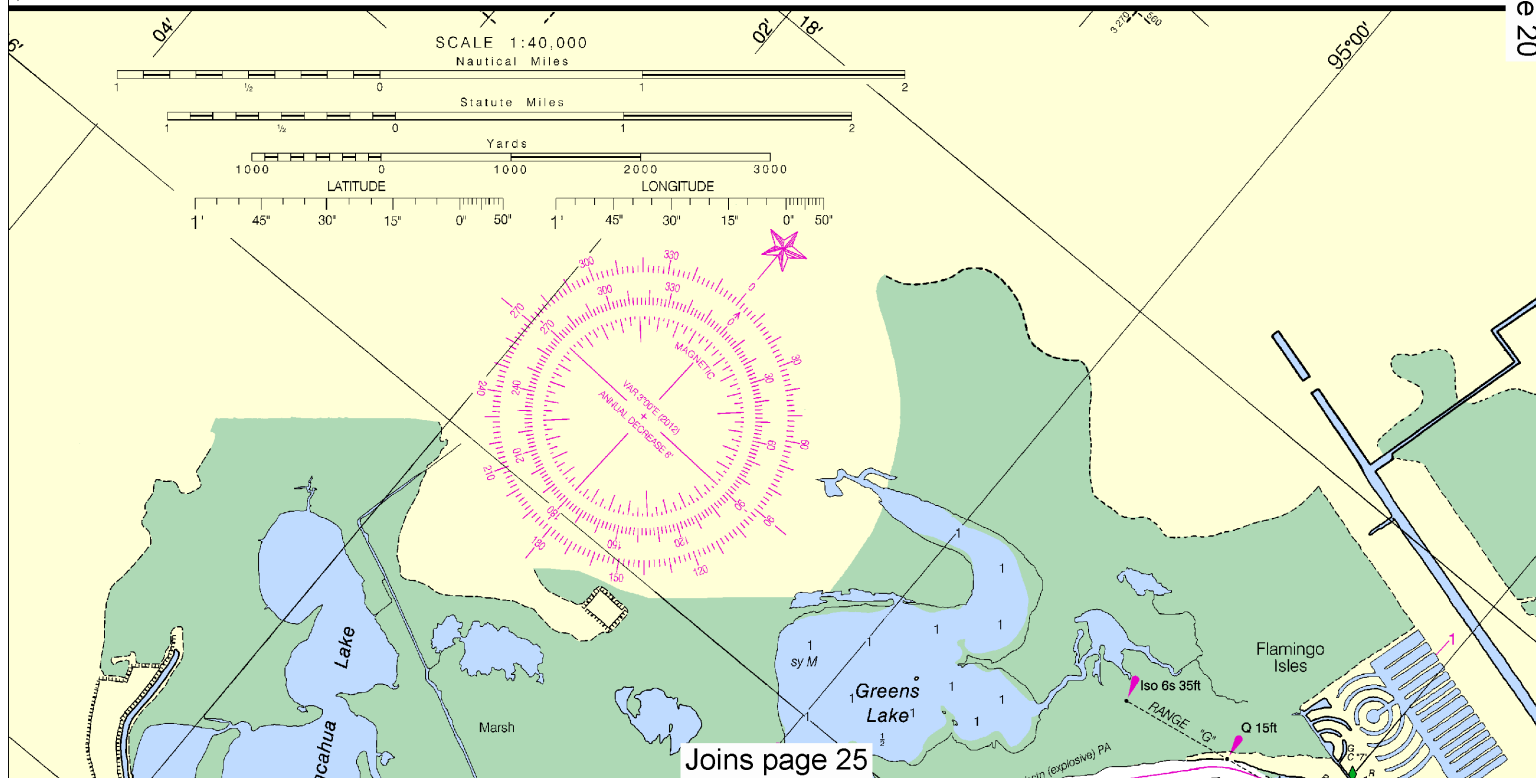
Piles and platforms are not shown where they interfere with a light symbol.

CAUTION

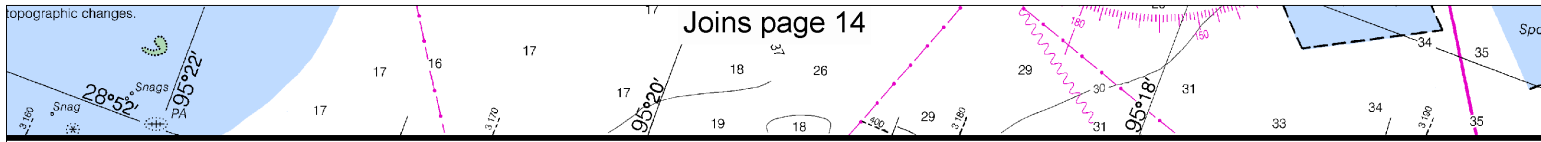
BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

n, 1988 KAPP 96



Joins page 20



INTRACOASTAL WATERWAY

Project Depths

12 feet Carrabelle, FL to Brownsville, TX.
The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.

Distances

The Waterway is indicated by a magenta line. Mileage distances shown along the Waterway are in Statute Miles, based on zero at Harvey Lock, LA, and are indicated thus: —◆—

Tables for converting Statute Miles to International Nautical Miles are given in U.S. Coast Pilot 5.

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

CAUTION

Fixed and floating obstructions, some submerged, may exist within the magenta tinted bridge construction area. Mariners are advised to proceed with caution.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

POLLUTION REPORTS

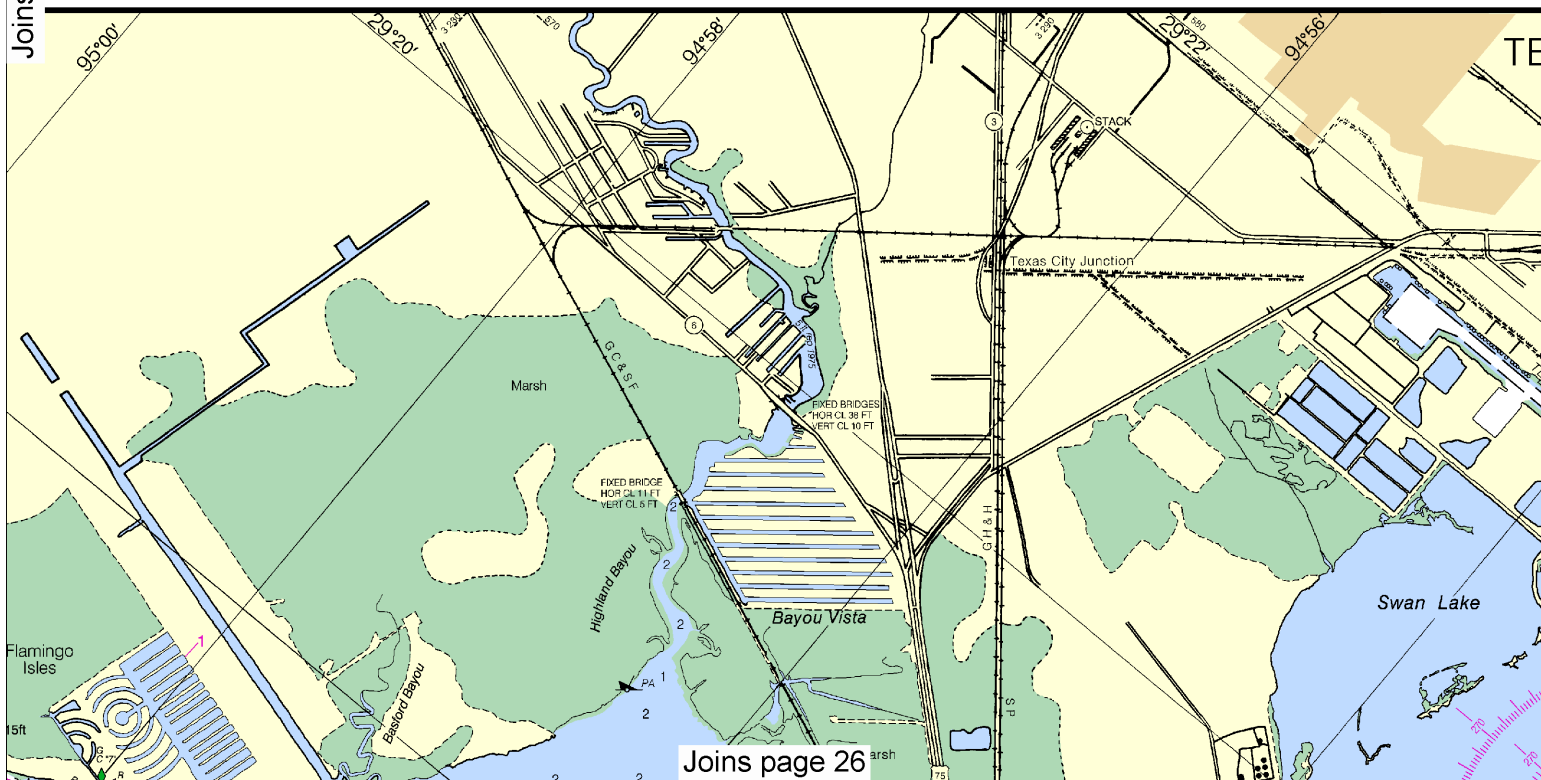
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

PLANE COORDINATE GRID

(based on NAD 1927)

Texas State Grid, south-central zone, is indicated on this chart at 10,000 foot intervals. The last three digits have been omitted.

Joins page 19



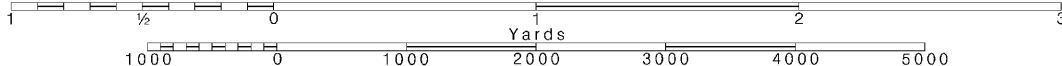
20

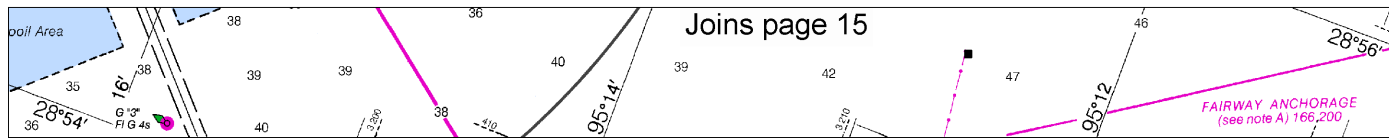
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





11322

**MARINE WEATHER FORECASTS
NATIONAL WEATHER SERVICE**

CITY	TELEPHONE NUMBER	OFFICE HOURS
Houston, TX	*(281) 337-5074	8:00 AM-4:00 PM (Mon.-Fri.)

*Recording (24 hours daily)

NOAA WEATHER RADIO BROADCASTS

CITY	STATION	MHz	BROADCAST TIMES
Galveston, TX	KHB-40	162.55 MHz	24 hours daily
Bay City, TX	WWG-40	162.425 MHz	24 hours daily
Houston, TX	KGG-68	162.40 MHz	24 hours daily

HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations.

Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

**BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS
BY MARINE RADIOTELEPHONE STATIONS**

CITY	STATION	(kHz)	DAILY BROADCAST-CST	SPECIAL WARNINGS
Galveston, Texas	NOY	2670	4:50 6:50 10:50 A.M. 4:50 P.M.	* On receipt
Port Aransas, Texas	NOY-3	2670	4:40 6:40 10:40 A.M. 4:40 P.M.	* On receipt

* Preceded by announcement on 2182 kHz and 156.8 MHz

Distress calls for small craft are made on 2182 kHz or channel 16 (156.80 MHz) VHF.

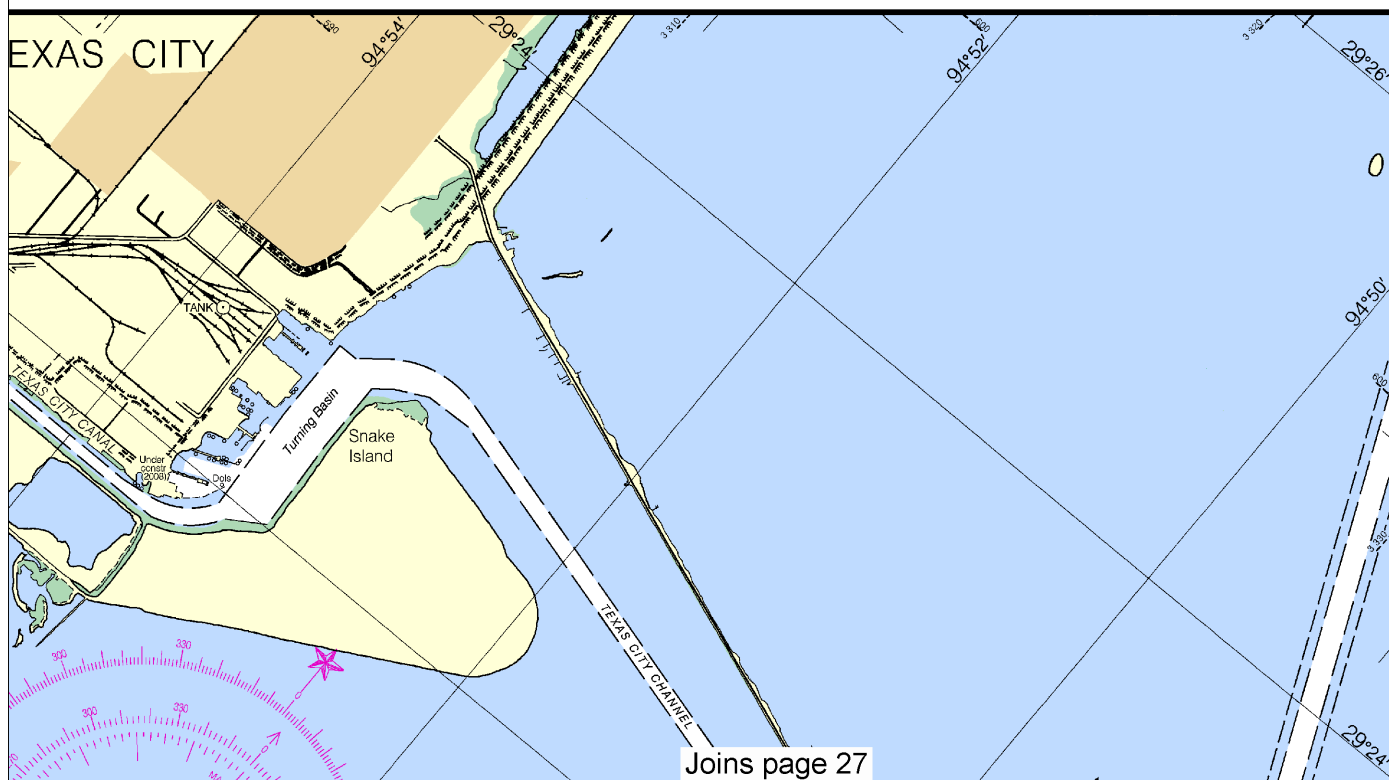
CAUTION

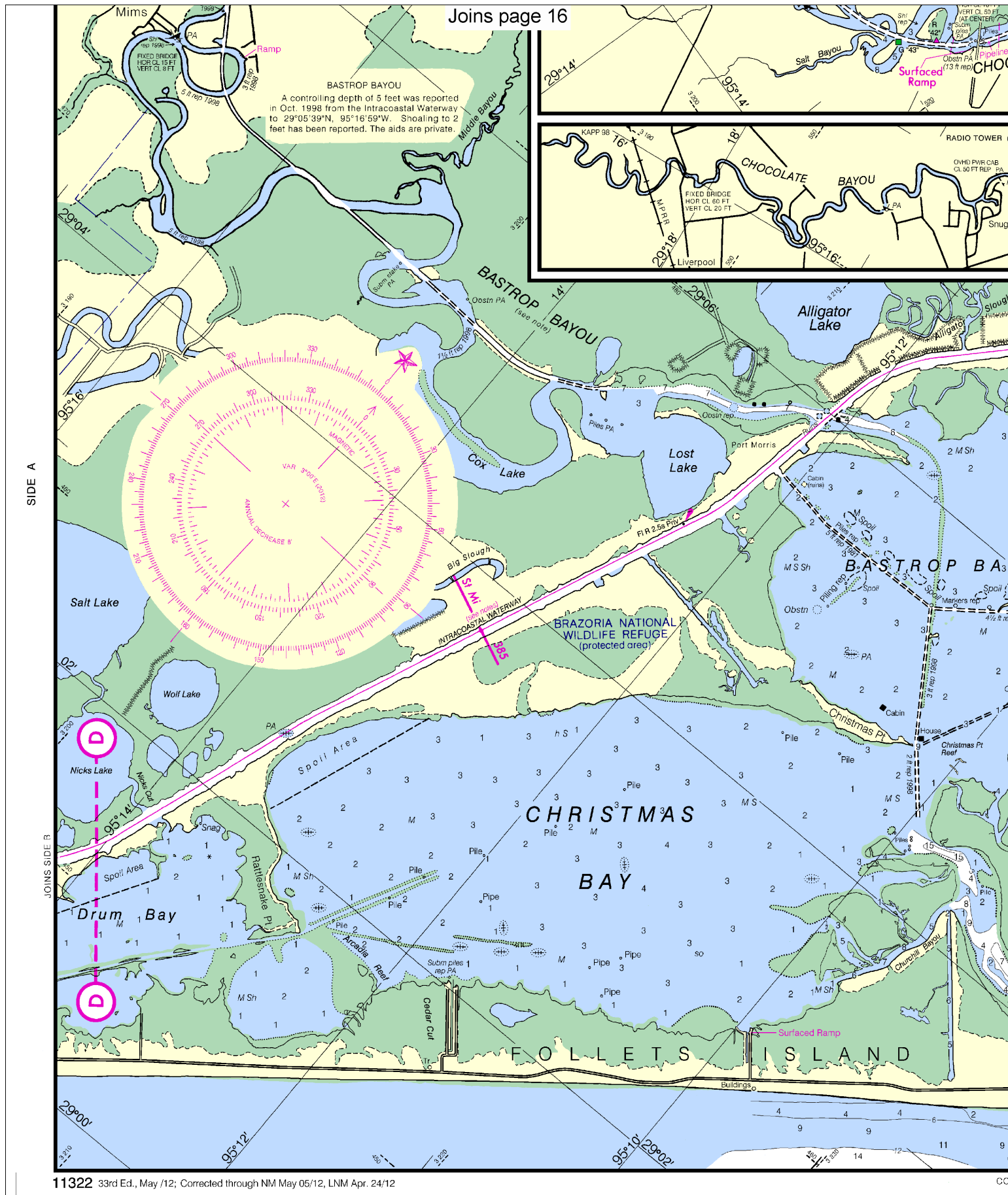
WARNINGS CONCERNING LARGE VESSELS

The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sailboats and sailboards may unexpectedly find themselves unable to maneuver. Bow and stern waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

ACKNOWLEDGMENT

The National Ocean Service acknowledges the exceptional cooperation received from members of the Galveston Bay Power Squadron, District 21, United States Power Squadrons, for continually providing essential information for revising this chart.





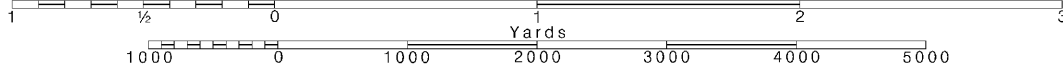
22

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.

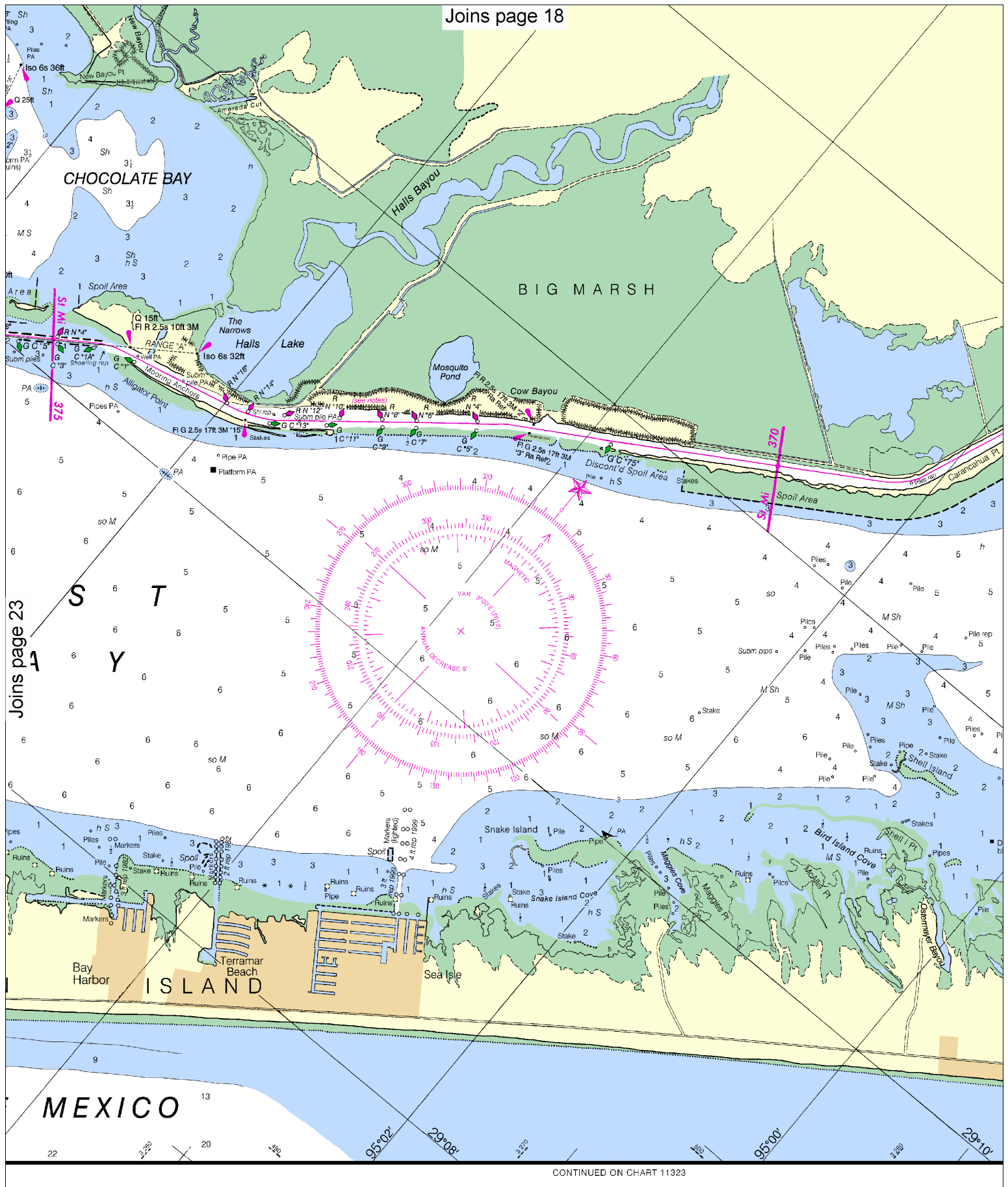




Joins page 17

Joins page 24

CONTINUED ON CHART 11321



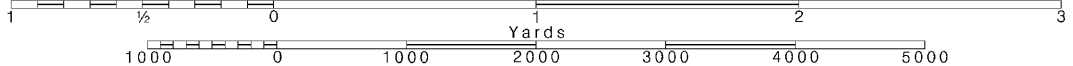
24

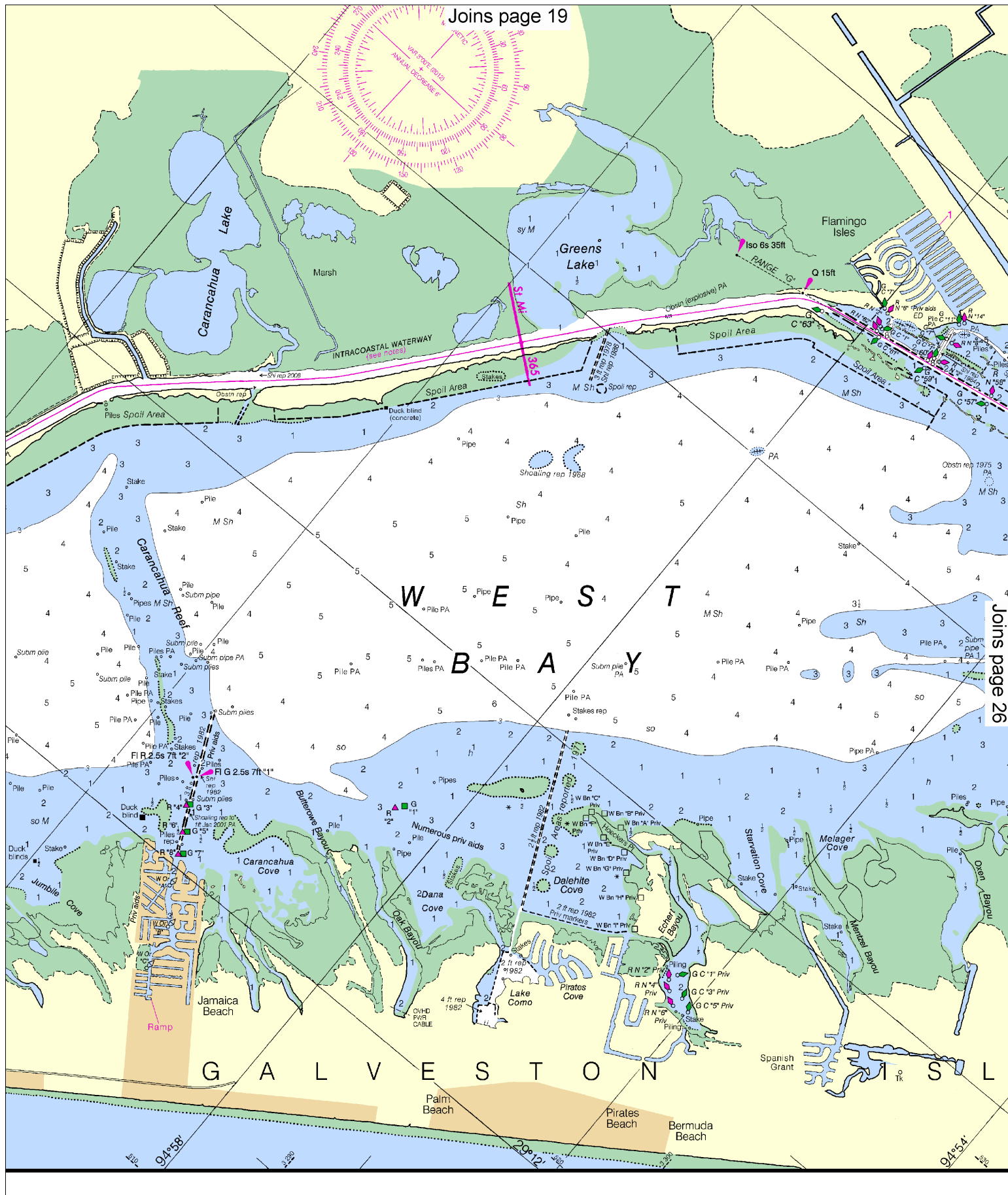
Note: Chart grid lines are aligned with true north.

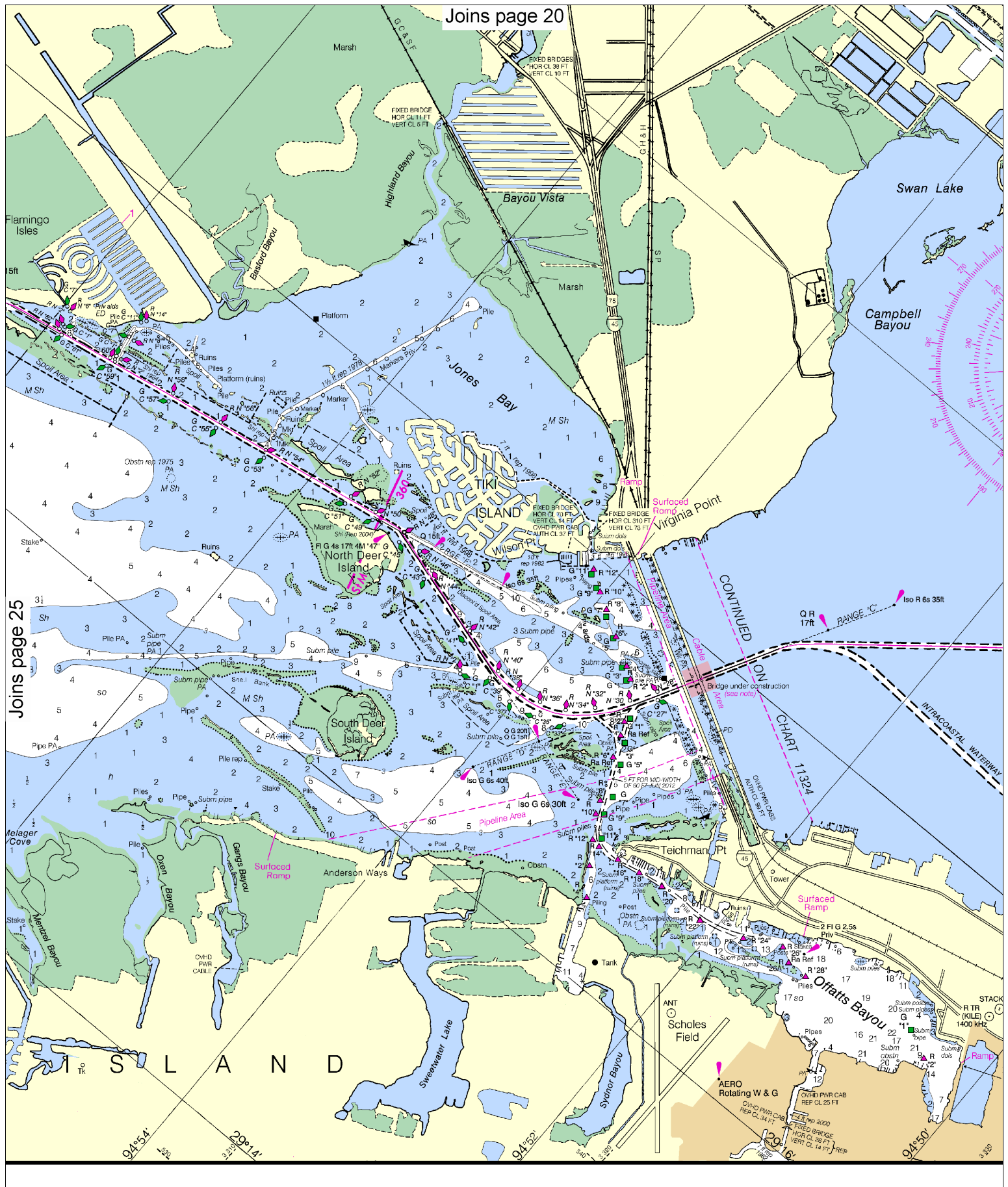
Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.







Joins page 20

Joins page 25

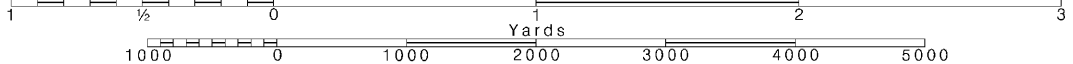
26

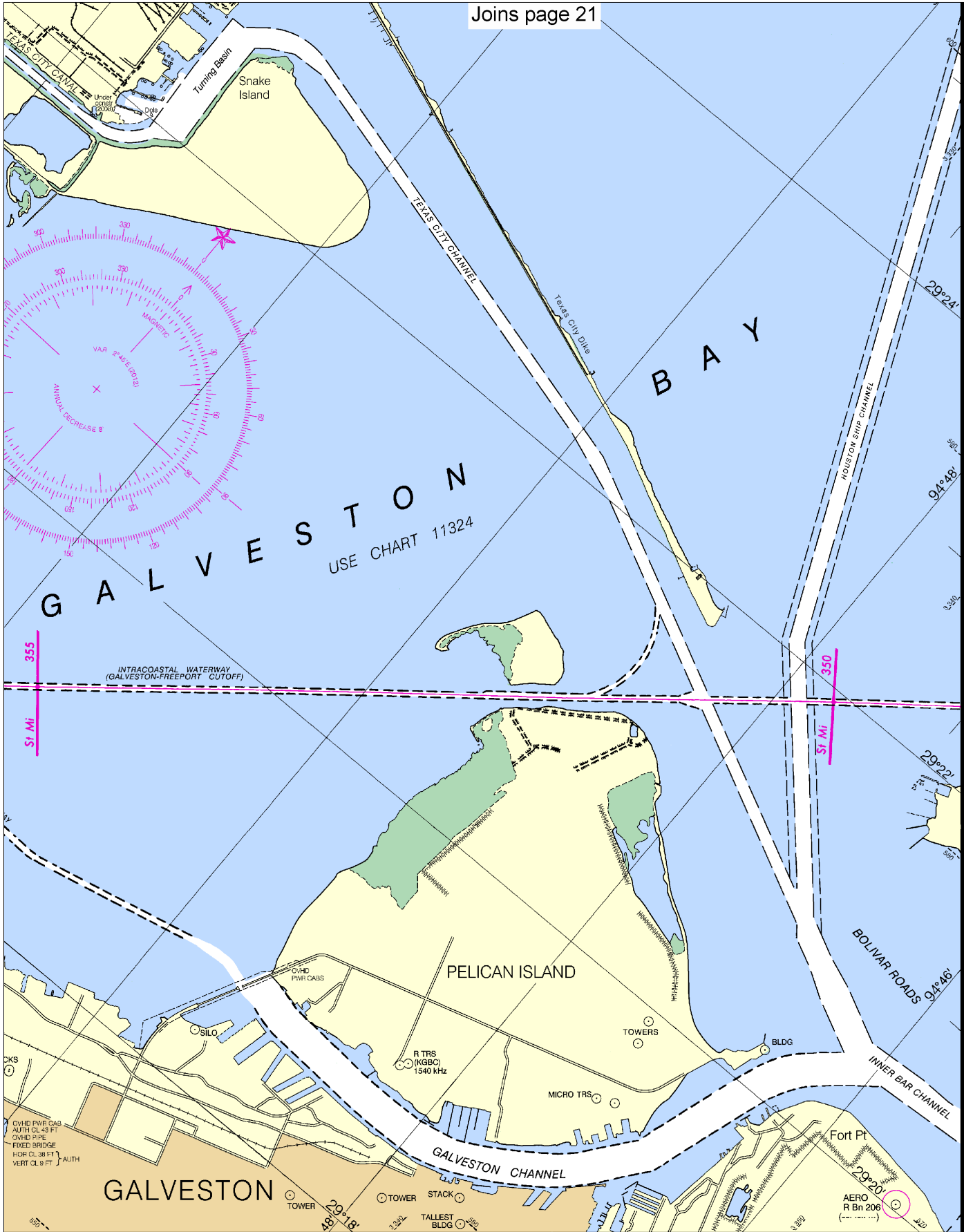
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





SIDE A

11322



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

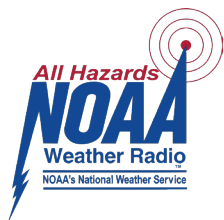
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Online chart viewer	—	http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker